

Response to Office Action
U.S. Patent Application No. 10/660,344

REMARKS

Claims 33-52 are pending in this patent application. In this Response, no claims have been amended and no new claims have been added. Favorable reconsideration of the application and allowance of all of the pending claims are respectfully requested in view of the following remarks.

In the Office Action, claims 33-52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2001/0041496 to Smirnov (*Smirnov*) in view of U.S. Patent No. 6,230,543 to Froehling et al. (*Froehling*).

Independent claim 33 recites a toy comprising “a body; a breath sensor, the breath sensor being coupled to the body at a first location, the breath sensor being configured to detect the presence of breath proximate to the first location by detecting the value of one of humidity and temperature proximate to the body, the breath sensor being configured to generate an electrical characteristic relative to the value detected by the breath sensor; a reference sensor, the reference sensor being coupled to the body at a second location, the second location being spaced apart from the first location, the reference sensor in the second location being protected from any breath to which the breath sensor at the first location is exposed, the reference sensor being configured to detect the value of one of humidity and temperature proximate to the body and to generate its own electrical characteristic relative to the value detected by the reference sensor; an output device, the output device being configured to produce an output; and a processor, the processor being operatively coupled to the breath sensor, to the reference sensor, and to the output device, the processor being configured to compare the electrical characteristic of the breath sensor to the electrical characteristic of the reference sensor, the processor being configured to activate the output device if the electrical characteristics of the breath and reference sensors differ by a predetermined amount.”

Independent claim 43 recites a breath-sensitive toy, comprising “a first sensor, the first sensor being positioned at a first location on the toy, the first sensor being configured to generate an electrical characteristic in response to the presence of breath proximate to the first sensor; a second sensor, the second sensor being positioned at a second location on the toy, the second

Response to Office Action
U.S. Patent Application No. 10/660,344

location being spaced apart from the first location, the second sensor being located so that it is protected from air exposure, the second sensor being configured to generate an electrical characteristic in response to the detection of ambient conditions proximate to the second sensor, the second sensor being positioned to be exposed to different ambient conditions than the first sensor; an output device; and a processor, the processor being connected to the first sensor, to the second sensor and to the output device, the processor being configured to compare the electrical characteristic of the first sensor and the electrical characteristic of the second sensor, the processor activating the output device when the electrical characteristic of the first sensor exceeds the electrical characteristic of the second sensor by a predetermined amount.”

Independent claim 49 recites a breath-sensitive musical toy, comprising “a body, the body defining a plurality of distinct channels, each of the channels defining a separate passageway through which air can flow; a plurality of breath sensors, each of the breath sensors being disposed in one of the channels, each of the breath sensors being configured to generate an electrical characteristic based on the presence of breath proximate to the particular breath sensor; a processor, the processor being electrically connected to the plurality of breath sensors; and a speaker, the speaker being configured to produce an audible output, the processor activating the speaker when the electrical characteristic of one of the plurality of sensors relative to the electrical characteristics of another of the plurality of sensors indicates the presence of breath.

For at least the following reasons, Applicants respectfully submit that *Smirnov* and *Froehling* fail to teach or suggest the features as recited in independent claims 33, 43, and 49.

Smirnov relates to a talking toy that can generate audible messages in response to an external activation of a sensor at certain moments of time. *Smirnov* discloses the use of a temperature sensor that measures the temperature external to the toy. A message is reproduced by the toy of *Smirnov* based in part “on surrounding temperature and other environment conditions.”

Froehling relates to methods for manufacturing electrical humidity detectors, and more particularly, to techniques for calibrating such humidity detectors. *Froehling* discloses a method of calibrating a humidity detector which requires that the sensor of the humidity detector be

Response to Office Action
U.S. Patent Application No. 10/660,344

exposed to only a single reference humidity level. The method includes connecting a first reference device to the transmitter circuit in place of the sensor. The first reference device simulates the performance of a model sensor at a first relative humidity level. The first reference device has an electrical characteristic value which corresponds to the electrical characteristic of the model sensor at the first relative humidity level. The transmitter circuit is adjusted so that the output signal indicates the first relative humidity level. Then the first reference device is disconnected from the transmitter circuit. A second reference device is connected to the transmitter circuit in place of the sensor to simulate performance of the model sensor at a second relative humidity level. The second reference device has an electrical characteristic value which corresponds to the electrical characteristic of the model sensor at the second relative humidity level. The transmitter circuitry is adjusted and the second reference device is disconnected from the transmitter circuit. Then the sensor is connected to the transmitter circuit and the transmitter circuit is readjusted one more time.

Applicants respectfully submit that the combination of *Smirnov* with *Froehling* is inappropriate. *Smirnov* and *Froehling* are completely non-analogous with respect to each other, especially since the two references are in different fields of endeavor. In addition, not only is *Froehling* not combinable with *Smirnov*, but *Froehling* fails to teach or suggest any limitation in the pending claims or anything relevant to the pending claims. Accordingly, Applicants respectfully submit that it is improper for the Examiner to combine these two references.

Smirnov fails to teach or suggest the invention as recited in independent claims 33, 43, and 49. The Office Action even states that “*Smirnov* does not disclose the humidity sensor having the claimed arrangement, and a reference sensor having the claimed arrangement.” Applicants assert that *Smirnov* fails to teach or suggest other claim limitations in addition to those as well, not only in the independent claims, but also the dependent claims. For example, the Office Action fails to address the recited feature in independent claim 49 of “a body, the body defining a plurality of distinct channels, each of the channels defining a separate passageway through which air can flow.” Another example of a failure to address in the Office Action relates to dependent claim 52, which recites that “audible outputs are generated by the

Response to Office Action
U.S. Patent Application No. 10/660,344

speaker in proportion to the force with which a user blows into one of the channels of the toy.” Other features in the pending claims are not addressed in the Office Action. **Applicants respectfully request that the Examiner issue a new, complete Office Action to identify the teachings in *Smirnov* that are being relied upon to teach or suggest each of the features recited in the claims, but that were not addressed in the Office Action.**

Applicants respectfully disagree with the interpretation of the disclosure of *Smirnov*. For example, Applicants disagree with the assertion in the Office Action that *Smirnov* discloses “a reference sensor (paragraph 0077, lines 3-5, providing a corresponding sensor connected to a processor; since the corresponding sensor is connected to a processor [which stores digital values] it is inherently capable of detecting an ambient value); the reference sensor inherently has an electrical characteristic in order to operate in conjunction with the processor.” Referring to paragraph 0077 of *Smirnov*, the paragraph actually recites: “Furthermore, not only temperature can be used as a characteristic of environment but atmospheric pressure, humidity, illumination, level of acoustic noise, etc. To detect these environment characteristics, it is necessary to install corresponding sensors, connect them to controller 21 and process this data in the program of selecting a message for reproduction.” It is not clear how the Examiner is interpreting that disclosure of *Smirnov* as teaching or suggesting a reference sensor as stated in the Office Action and as recited in the claims. **Applicants respectfully request that the Examiner provide the basis for the assertion in the Office Action regarding a reference sensor. This request has been made previously by Applicants during the prosecution of this application and the Examiner has not yet complied with this request.**

The Office Action states that *Froehling* teaches “a humidity sensor that makes use of a reference sensor defining the value of humidity and generating an electrical characteristic in relation to the value detected by the reference sensor (col. 1, lines 14-21).” Again, Applicants assert that the Office Action cites a location in a reference for which there is no support for the alleged teaching. Applicants respectfully note that the referenced passage of *Froehling* states that a “typical detector comprises a humidity sensor which has a material with an electrical characteristic that varies with variation of humidity to which the sensor is exposed. The sensor is

Response to Office Action
U.S. Patent Application No. 10/660,344

connected to an electrical circuit, often referred to as a transmitter, which normalizes the signal from the sensor and compensates for differences between the actual and ideal electrical characteristics of the sensor.” Applicants assert that the foregoing passage fails to teach or suggest anything relevant to that alleged in the Office Action.

In addition, the rest of the disclosure of *Froehling* fails to teach or suggest the use of a reference sensor as recited in independent claim 33, the use of a second sensor as recited in independent claim 43, and the use of a plurality of breath sensors as recited in independent claim 49. *Froehling* simply does not disclose the use of an additional sensor as recited in the claims. Accordingly, Applicants respectfully assert that *Froehling* fails to remedy the deficiencies of *Smirnov*.

Further, the Office Action states it “would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the sensor arrangement as taught by *Froehling* since [it] states that such a sensor arrangement is typical for a humidity sensor.” This statement of motivation is deficient and incorrect. Applicants respectfully request that the Examiner explain and identify what is the “sensor arrangement” allegedly taught by *Froehling*. *Froehling* relates to the manufacture of one sensor and the calibration thereof. Also, Applicants respectfully request that the Examiner explain how the teaching of *Froehling* is used to modify *Smirnov* and in particular, how *Smirnov* is allegedly being modified.

In summary, Applicants submit that *Smirnov* fails to teach or suggest the invention as recited in the claims, *Froehling* fails to teach or suggest the invention as recited in the claims, *Smirnov* and *Froehling* are not properly combinable, and that even if taken together, *Smirnov* and *Froehling* fail to teach or suggest the invention as recited in the claims. For at least the foregoing reasons, Applicants submit that independent claims 33, 43, and 49 are allowable.

Applicants respectfully submit that each of the dependent claims 34-42, 44-48, and 50-52 is allowable for at least its dependency, either directly or indirectly, from one of the independent claims 33, 43, and 49, and for the additional features that it recites. Accordingly, for at least the foregoing reasons, Applicants respectfully submit that claims 33-52 are allowable.

In addition, if for any reason the Examiner feels that the application is not now in

Response to Office Action
U.S. Patent Application No. 10/660,344

condition for allowance, the Examiner is respectfully requested to call the undersigned to discuss any unresolved issues and to expedite the disposition of the application.

Applicants hereby petition for any extension of time that may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 05-0460.

Respectfully submitted,

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